Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

6075 Kimball Avenue • Chino, CA 91708
P.O. Box 9020 • Chino Hills, CA 91709
TEL (909) 993-1600 • FAX (909) 993-1983

www.ieua.org

November 3, 2015

The Honorable Felicia Marcus, Chair
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: **Comments on Drought Emergency Regulations Performance Reporting**

Dear Chair Marcus and State Board Members:

Thank you for the opportunity to provide comments to the State Water Resources Control Board (State Board) on potential refinements to the Drought Emergency Regulations.

We are committed to helping the State achieve its water reduction goals during this devastating drought and to sustainably improving long-term statewide water use efficiency.

We offer two core recommendations. The first addresses a method to improve the fairness of the current Drought Emergency measurement/reporting metric. The second addresses the development of a more equitable measurement and reporting metric that supports continued water savings and long-lasting urban water use efficiency.

> ***Recommendation (1): Provide an adjustment to the current R-GPCD measurement/reporting methodology that accounts for the impact of weather on local water use.***

The R-GPCD methodology used for measuring and reporting water use reductions constituted the best data option available to the State Board at the time of Governor's Drought Emergency Declaration. We commend the Board and its staff for so effectively raising an unprecedented level of public awareness about the urgent need to reduce water use and for your success in so quickly achieving the Governor's goal of a 25%% reduction in statewide urban water use during this drought.

However, we share many of the concerns that local agencies have raised in recent months about the fairness and equity of the current R-GPCD methodology that sets the water reduction targets for agencies and is used by the State Board as the basis for assessing compliance with the Drought Emergency Regulations.

We are aware that there are many options for improvements to the Emergency Regulations that will be discussed at the upcoming October 26th informal workgroup. ***We urge that, at a minimum, the Board consider an adjustment that better accounts for the real differences of weather on local water use.***

Local temperature and rainfall greatly impact water use and weather data is readily available. DWR has an extensive network of CIMIS ET stations that can provide estimated ET data for each reporting agency. We believe that a weather-based adjustment to the R-GPCD targets is warranted and will make these water reduction goals more equitable where local weather conditions naturally create higher water needs.

> ***Recommendation (2): Consider establishment of a water efficiency performance reporting methodology based on achievement of the State's existing water efficiency standards.***

The key drawback with the current assessment/reporting methodology is that ***R-GPCD is not a measure of water efficiency***. The metric is set up as a comparative measurement – it compares an agency's water use from one month to the next with its 2013 baseline and effectively measures overall changes in water use. ***However R-GPCD provides little context as to whether the reporting agency's water use, in itself, is efficient or reasonable***.

We agree with Governor Brown on the need for *all* water agencies to share responsibility for reducing their water use during this drought emergency. However, not all agencies start with the *same* level of water inefficiency. The current R-GPCD methodology does not account for:

- "Micro" climates and evapotranspiration (ET) differences across the state;
- Significant water efficiency improvements achieved by agencies that predate 2013;
- Growth that has occurred since 2013; and,
- How the percentage reduction targets will impact low-income households that are already largely efficient.

As underscored at the August 26 informal workgroup meeting, many local agencies believe these inherent differences matter when it comes to assessing whether their customers' water use is reasonable or that the target percentage water reductions are either feasible or sustainable. For this reason, many feel that the conservation targets that have been assigned by the State Board are not fair or equitable for their customers.

We believe that the solution to this challenge, while continuing to achieve the State's water use reduction goals, resides in the development of an assessment/reporting methodology that is ***based on residential water efficiency based-performance standards***, ***specifically the water efficiency standards that the State has already adopted through SBX7-7 (55 GPCD indoor water use) and AB 1881, the Model Water Efficient Landscape Ordinance (80 % of ET for existing landscapes).*** The benefits of using the State's existing water efficiency-based standards for measuring and reporting water use performance include:

- ***Fairness.*** Use of the State standards ***automatically provides equity across all agencies***, including the recognition of local weather conditions, past conservation investments, growth, and impacts on low-income customers.

- ***Simplicity.*** Use of the State standards will enable the State Board to consolidate the various conservation codes or actions that water agencies must currently measure into a single, ***impartial, science-based measurement that is fair and defensible for both the Board and local agencies***.

- ***Clarity.*** For agencies and their customers, use of the State standards provides *a* ***clear message to the public about what a reasonable amount of water to use is given their local conditions***. Agencies would have an improved tool for identifying inefficient users, while customers will have the information they need to understand whether their water use is efficient or inefficient based on the State's standards.

- ***Flexibility.*** For the Board, use of the State standards creates a ***single water management tool*** where efficiency targets can be ratcheted up or down as needed to respond to future droughts or the impacts of climate change.

Attached to this letter is a brief outline of an approach for establishing a water efficiency performance-based assessment/reporting methodology. ***We urge that the State Board consider developing a test protocol within the emergency regulation framework, as an alternative compliance mechanism, to evaluate the effectiveness of this efficiency target approach as part of its refinement of the Drought Emergency Regulation.***

Of note, agencies that have already developed water "budgets" for their residential and dedicated irrigation customers would be able to use the new methodology now because they have the data needed to report their performance in achieving the water efficiency standards.

Additionally new satellite-based computer mapping technologies – some of which were highlighted at the Governor's July 2015 Technology Summit– have the capacity to generate parcel level water use budgets for residential landscapes throughout California.

Finally, a statewide data collaborative effort is underway involving water agencies throughout California working in partnership with UC Davis. The purpose of the collaborative is to collect and share data among utilities to improve efficiencies, refine demand management strategies and promote long-term sustainable solutions that build on the water/energy nexus. A cloud-based, secured infrastructure will be built through a non-profit mechanism to house data from agencies and facilitate statewide analysis. This effort is a "bottom-up" approach to providing meaningful input and recommendations that will help shape future water management decisions that have statewide impact.

In closing, we offer the above recommendations with the intent of assisting the State Board in:

- Maximizing the sustainable water efficiency and reasonable water use in the urban sector and beyond;
- Addressing the equity concerns expressed by local agencies about the current R-GPCD methodology;

- Creating an impartial reporting standard that will achieve equity across agencies located in different climates with different water conservation histories, zoning ordinance and customer economic demographics.
- Providing flexibility to adjust water efficiency performance-based standards over time as conditions change; and
- Improving the public's understanding of what it means to make conservation "a way of life" in California.

We believe that the use of water efficiency performance-based standards will provide a foundation for more efficient statewide water use that improves the resiliency of the California's water supplies as we deal future droughts and the serious impacts of climate change.

We thank you for your consideration of our recommendations and look forward to working with you in the months ahead.

Sincerely,

P. Joseph Grindstaff
General Manager
Inland Empire Utilities Agency

Joone Lopez
General Manager
Moulton Niguel Water District

Richard W. Atwater

Paul A. Cook, General Manager
Irvine Ranch Water District

Nadeem Majaj
Public Works Director

David Pedersen, P.E.
General Manager
Las Virgenes Water District

Steven S. Schuyler
Executive Vice-President, Government Affairs
Building Industry Association of Southern California

Daniel R. Ferons
General Manager
Santa Margarita Water District

EXAMPLE METHODOLOGY

FOR STATE WATER EFFICIENCY PERFORMANCE-BASED TARGETS

Calculation of Local Agency Water Efficiency Target.

Local agencies would provide the following information in order for the Board to calculate an aggregate agency water efficiency performance target:

- Total agency-wide irrigated area
- Evapotranspiration over relevant period of time
- Estimated Population

The Water Efficiency Target is calculated using the following equation:

Agency-wide water target = (Evapotranspiration x Total Irrigable Area) x 80% x (Conversion Factor) + Total Population x 55 GPCD x (Number of days in time period) x (Conversion Factor)

Calculation of Local Agency Performance.

Local agencies would provide the Board with Total Water Production and Indoor Commercial, Industrial and Institutional (CII) usage for the relevant period of time.

Performance is determined by comparing total agency-wide water production minus CII water use[1] over the relevant time period with the total agency-wide water target.

Example:

	Agency A	Agency B	Units
Total April 2013 Production	5,000	5,000	AF
Total April 2016 Production	4,000	4,000	AF
CII Usage	500	500	AF
Population	300,000	300,000	People
Total Irrigable Area	500,000,000	500,000,000	Square Feet
ET in April 2016	3.8	2	Inches
Indoor Target	1,519	1,519	AF
Outdoor Target	2,892	1,522	AF
Agency-wide Target	4,411	3,041	AF

[1] Current information is insufficient to easily calculate Commercial, Industrial and Institutional (CII) water targets at this time. However CII usage represents a relatively small fraction of statewide urban water use.

Both agencies have the same 2013 and 2016 production but different ET rates. Note that one Agency is far more *efficient* than the other. If the target compliance tier for both Agencies A and B was 20%, then both would meet the target. However Agency A is more efficient while Agency B could do more to eliminate the water waste.

Another option to more accurately reflect the July 2015 DWR-updated Model Water Efficiency Landscape standards is to input irrigable area subject to the relevant percentage of ET:

- Total existing landscape area would be calculated at 80% ET
- Total new residential landscape area would be calculated at 55% ET
- Total new commercial landscape area would be calculated at 45% ET

This method more accurately reflects the State's recently revised outdoor water efficiency standards for new construction.